Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently amended) A method of authenticating a resource reservation message sent between a source node and a destination node in a network, comprising:

constructing an outgoing resource reservation message, the message comprising a plurality of objects;

selecting multiple objects of the message;

constructing identification values identifying the selected multiple objects, the identification values including an ordered list;

calculating a message integrity value using the selected multiple objects of the message, the calculating the message integrity value including:

using the selected multiple objects in an order specified by the ordered list;

inserting the calculated integrity value and the constructed identification values in the message;

sending the message including the inserted integrity value and the identification values, from the source node, across a network to the destination node; and

authenticating the multiple objects of the message at the destination node using the message integrity value and the constructed identification value.

2.   (Previously presented) The method of claim 1, further comprising:

inserting a node identifier in the message, where the node identifier identifies either the source node or the destination node.

3.   (Previously presented) The method of claim 2, where calculating the message integrity value further comprises calculating the message integrity value using the node identifier.

4.   (Previously presented) The method of claim 2, where the node identifier comprises a network address associated with at least one of the source node or the destination node.

5.   (Previously presented) The method of claim 4, where calculating the message integrity value comprises calculating the message integrity value based on the network address.

6.   (Canceled)

7.   (Previously presented) The method of claim 1, where each of the plurality of objects comprises a field of the message.

8.   (Previously presented) The method of claim 1, where the message comprises at least one of a packet, a cell, a datagram, a fragment of a packet, a fragment of a datagram, or a fragment of a cell.

9.   (Previously presented) The method of claim 1, where the message comprises a Resource Reservation Protocol (RSVP) path message.

10.   (Previously presented) The method of claim 1, where the message comprises a Resource Reservation Protocol (RSVP) reservation request message.

11.   (Previously presented) The method of claim 1, where calculating the message integrity value comprises using a cryptographic algorithm.

12.   (Previously presented) The method of claim 11, where the cryptographic algorithm comprises at least one of an MD5 message digest algorithm, a secure hash algorithm (SHS), a RIPEMD-160 algorithm, a message authentication code (MAC) algorithm, a Cyclical Redundancy Checking (CRC) algorithm, a private key encryption algorithm, or a public encryption key algorithm.

13.   (Previously presented) The method of claim 1, further comprising:

extracting, at the destination node, the identification values identifying the selected

multiple objects from the message.

14.   (Previously presented) The method of claim 13, where authenticating the

multiple objects of the message at the destination node using the message integrity value

comprises:

authenticating the multiple objects of the message specified by the extracted

identification values.

15.   (Previously presented) The method of claim 1, where the message is used

by routers in the network for establishing a desired level of quality of service for

transmissions between the source node and the destination node.

16.   (Currently amended) A system for performing resource reservation

authentication in a network, comprising:

    a source node comprising:

        a processor to:

            construct an outgoing resource reservation message, the

message comprising a plurality of objects,

            select multiple objects of the message,

construct a list identifying the selected multiple objects,

where the list includes an ordered list,

calculate a message integrity value using the selected

multiple objects and the constructed list, where when calculating the message integrity

value, the processor is further to:

use the selected multiple objects in an order

specified by the ordered list, and

insert the calculated message integrity value and the

constructed list in the message, and

a network interface to send the message across the network; and

a destination node comprising:

a network interface to receive the message, and

a processor to authenticate the message using the message integrity

value and the constructed list.

17.   (Currently amended) A network device, comprising:

a memory configured to store instructions;

a processor configured to execute the instructions in the memory to:

construct an outgoing resource reservation message to reserve

resources in a network between the network device and a destination node, the message

comprising a plurality of objects,

select multiple objects of the plurality of objects of the message,

construct a list identifying the selected multiple objects, the list including an ordered list,

calculate a message integrity value using the selected multiple objects of the message, where when calculating the message integrity value, the processor is further to:

use the selected multiple objects in an order specified by the ordered list, and

insert the message integrity value and the constructed list into the message; and

a network interface to send the message across the network to the destination node for authentication of the network device at the destination node using the inserted message integrity value and the constructed list.

18.   (Canceled)

19.   (Previously presented) The device of claim 17, where each of the plurality of objects comprises a field of the message.

20.   (Previously presented) The device of claim 17, where the message comprises at least one of a packet, a cell, a datagram, a fragment of a packet, a fragment of a datagram, or a fragment of a cell.

21.   (Previously presented) The device of claim 17, where the message comprises a Resource Reservation Protocol (RSVP) path message.

22.   (Previously presented) The device of claim 17, where the message comprises a Resource Reservation Protocol (RSVP) reservation request message.

23.   (Previously presented) The device of claim 17, where the processor is further configured to calculate the message integrity value using a cryptographic algorithm.

24.   (Previously presented) The device of claim 23, where the cryptographic algorithm comprises at least one of a MD5 message digest algorithm, a secure hash algorithm (SHS), a RIPEMD-160 algorithm, a message authentication code (MAC) algorithm, a Cyclical Redundancy Checking (CRC) algorithm, a private key encryption algorithm, or a public encryption key algorithm.

25.   (Previously presented) The device of claim 17, where the message is used by routers in the network for establishing a desired level of quality of service for transmissions between the network device and the destination node.

26-38. (Canceled)